Docket No.: 12810-00067-US
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Karl-Heinz Kogel et al.

Application No.: 10/522106 — Confirmation No.: Not Yet Assigned

Filed: January 24, 2005 — Art Unit: N/A

For: METHOD FOR OBTAINING THE PATHOGENIC RESISTANCE IN PLANTS — Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS) AND TRANSMITTAL OF INTERNATIONAL SEARCH REPORT

MS Amendment
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Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

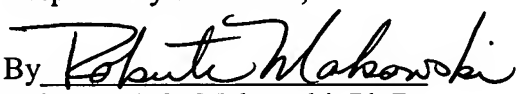
Of the documents listed on the attached SB/08 are the documents cited in the International Search Report during the prosecution of international application no. PCT/EP2003/007589, which corresponds to the above referenced application, and in accordance with 37 CFR 1.97(b)(3), Applicants hereby submit these documents for the Examiner 's consideration.

A copy of each reference on the PTO/SB/08 is attached. Applicants enclose herewith a copy of the International Search Report.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such. Moreover, Applicants understand the Examiner will make an independent evaluation of the cited documents.

This Information Disclosure Statement is being submitted before the first Office Action on the merits; accordingly, Applicants believe no fee is due with this response. However, if a fee is due, the Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 12810-00067-US.

Respectfully submitted,

By 

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Sheet 1 of 2

Complete if Known	
Application Number	10/522106
Filing Date	January 24, 2005
First Named Inventor	Karl-Heinz Kogel
Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	12810-00067-US

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]-Number[4]-Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	BA	WO-98/04586	02-05-1998	John Innes Centre Innovations Limited		
	BB	WO-99/47552	09-23-1999	Novartis AG, et al.		
	BC	WO-00/01722	01-13-2000	Pioneer Hi-Bred International, Inc.		

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NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	CA	Torres, M., et al., "*Arabidopsis* gp91 phox homologues *AtrbohD* and *AtrbohF* are required for accumulation of reactive oxygen intermediates in the plant defense response", Proceedings of the National Academy of Sciences of the U.S., Vol. 99, No. 1, January 8, 2002, pp. 517-522.	
	CB	Hückelhoven, R., et al., "Tissue-Specific Superoxide Generation at Interaction Sites in Resistant and Susceptible Near-Isogenic Barley Lines Attacked by the Powdery Mildew Fungus (*Erysiphe graminis f. sp. hordei*)", Molecular Plant-Microbe Interactions, Vol. 11, No. 4, 1998, pp. 292-300.	
	CC	Sagi, M., et al., "Superoxide Production by Plant Homologues of the gp91phox NADPH Oxidase. Modulation of Activity by Calcium and by Tobacco Mosaic Virus Infection", Plant Physiology, Vol. 126, July 2001, pp. 1281-1290.	
	CD	Bolwell, G. Paul, et al., "The apoplastic oxidative burst in response to biotic stress in plants: a three-component system", Journal of Experimental Botany, Vol. 53, No. 372, May 2002, pp. 1367-1376.	
	CE	Hückelhoven, R., et al., "Functional Studies on the Role of Reactive Oxygen Intermediates in the Resistance of Barley against Powdery Mildew", Plant Protection Science, Vol. 38, No. 2, 2002, pp. 458-460.	
	CF	Borden, S., et al., "Hydrogen peroxide plays a critical role in the defence response of tomato to *Cladosporium fulvum*", Physiological and Molecular Plant Pathology, Vol. 61, 2002, pp. 227-236.	
	CG	Mahalingam, R., et al., "Stress response, cell death and signalling: the many faces of reactive oxygen species", Physiologia Plantarum, Vol. 119, 2003, pp. 56-68.	
	CH	Büschges, R., et al., "The Barley *Mlo* Gene: A Novel Control Element of Plant Pathogen Resistance", Cell, Vol. 88, March 7, 1997, pp. 695-705.	
	CI	Jørgensen, J. Helms, "Spectrum of Resistance Conferred by *ML*-O Powdery Mildew	

Examiner Signature		Date Considered	

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Filing Date	January 24, 2005
First Named Inventor	Karl-Heinz Kogel
Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	12810-00067-US

		Resistance Genes in Barley", Euphytica, Vol. 26, 1977, pp. 55-62.	
	CJ	Lyngkjær, M.F., et al., "A Japanese powdery mildew isolate with exceptionally large infection efficiency on Mlo-resistant barley", Plant Pathology, Vol. 44, 1995, pp. 786-790.	
	CK	Schulze-Lefert, P., et al., "Closing the ranks to attack by powdery mildrew", Trends Plant Science, Vol. 5, No. 8, August 2000, pp. 343-348.	
	CL	Wolter, M., et al., "The *mlo* resistance alleles to powdery mildew infection in barley trigger a developmentally controlled defence mimic phenotype", Mol. Gen. Genet., Vol. 239, 1993, pp. 122-128.	
	CM	Jarosch, B., et al., "The Ambivalence of the Barley *Mlo* Locus: Mutations Conferring Resistance Against Powdery Mildew (*Blumeria graminis* f. sp. *hordei*) Enchance Susceptibility to the Rice Blast Fungus *Magnaporthe grisea*", Molecular Plant-Microbe Interactions, Vol. 12, No. 6, 1999, pp. 508-514.	
	CN	Lamb, C., et al., "The Oxidative Burst in Plant Disease Resistance", Annu. Rev. Plant Physiol. Plant Mol. Biol., Vol. 48, 1997, pp. 251-275.	
	CO	Schweizer, P., et al., "Double-stranded RNA interferes with gene function at the single-cell level in cereals", The Plant Journal, Vol. 24, No. 6, 2000, pp. 895-903.	
	CP	Torres, M., et al., "Six *Arabidopsis thaliana* homologues of the human respiratory burst oxidase (gp91phox)", The Plant Journal, Vol. 14, No. 3, 1998, pp. 365-370.	
	CQ	Yu, L., et al., "Functional Analysis of NADPH Oxidase in Granulocytic Cells Expressing a Δ 488-497 gp91phox Deletion Mutant", Blood, Vol. 94, No. 7, October 1, 1999, pp. 2497-2504.	
	CR	Doke, N., "Involvement of superoxide anion generation in the hypersensitive response of potato tuber tissues to infection with an incompatible race of *Phytophthora infestans* and to the hyphal wall components", Physiological Plant Pathology, 1983, Vol. 23, pp. 345-357.	
	CS	Levine, A., et al., "H_2O_2 from the Oxidative Burst Orchestrates the Plant Hypersensitive Disease Resistance Response", Cell, Vol. 79, November 18, 1994, pp. 583-593.	
	CT	Tenhaken, R., et al., "Function of the oxidative burst in hypersensitive disease resistance", Proc. Natl. Acad. Sci., USA, Vol. 92, May 1995, pp. 4158-4163.	
	CU	Altschul, S., et al., "Gapped Blast and PSI-Blast: a new generation of protein database search programs", Nucleic Acids Research, Vol. 25, No. 17, 1997, pp. 3389-3402.	
	CV	Kølster, P., et al., "Near-Isogenic Barley Lines with Genes for Resistance to Powdery Mildew", Crop Science, Vol. 26, September-October 1986, pp. 903-907.	
	CW	Kumar, J., et al., "A Compromised Mlo Pathway Affects the Response of Barley to the Necrotrophic Fungus *Bipolaris sorokiniana* , (Teleomorph: *Cochliobolus sativus*) and Its Toxins", Phytopathology, Vol. 91, No. 2, 2001, pp. 127-133.	

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